

# Table of Contents

Acknowledgements.....	i
Executive Summary .....	iii
Table of Contents .....	vii
List of Tables .....	ix
List of Figures .....	xi
Acronyms and Abbreviations .....	xiii
<b>Chapter 1: Introduction .....</b>	<b>1</b>
Purpose .....	1
Plan Goal and Objectives.....	3
Planning Process.....	6
Accomplishments.....	7
Water Supply Planning for the Next 20 Years.....	12
<b>Chapter 2: Demand Estimates and Projections.....</b>	<b>13</b>
Demands by Water Use Category .....	14
Population and Water Use Trends.....	17
Demand Projections in Perspective .....	20
<b>Chapter 3: Resource Analysis .....</b>	<b>23</b>
The Water Resource .....	23
Protection Tools and Water Resource Conditions.....	24
Additional Resource Protection Tools.....	29
Assessing Water Resources with Modeling Tools .....	31
Other Related Studies and Projects.....	35
Summary .....	39
<b>Chapter 4: Issue Identification .....</b>	<b>41</b>
Limited Traditional Sources Require Development of Alternative Water Sources ..	42
Environmental Protection for Natural Systems .....	45
New Connections to Local Government Comprehensive Plans.....	48
Additional Issues.....	49
Summary .....	50
<b>Chapter 5: Evaluation of Water Source Options.....</b>	<b>53</b>
Traditional Sources.....	54
Alternative Water Supply Sources.....	56
Conservation.....	65
Summary .....	69

<b>Chapter 6: Water Resource Development Projects .....</b>	<b>71</b>
Drilling and Testing Program .....	72
Groundwater and Wetland Monitoring .....	72
Groundwater and Evapotranspiration Assessments.....	73
Comprehensive Water Conservation Program .....	73
Feasibility Studies .....	74
Modeling .....	75
Minimum Flows and Levels Activities .....	77
Reservations Activities.....	77
Other Efforts .....	77
Summary .....	77
<b>Chapter 7: Water Supply Development Projects.....</b>	<b>79</b>
Public Water Supply .....	80
Agricultural Water Use .....	106
Thermoelectric Power Generation Self-Supply .....	107
Recreational Self-Supply.....	107
Commercial and Industrial Self-Supply .....	108
Domestic Self-Supply.....	109
Conclusion .....	109
<b>Glossary.....</b>	<b>113</b>
<b>References Cited.....</b>	<b>129</b>

## List of Tables

<b>Table 1.</b>	Population in the LWC Planning Area, 2005–2025.....	17
<b>Table 2.</b>	The SFWMD's Classification of Water Source Options.....	54
<b>Table 3.</b>	Estimated Project Costs for Development of Fresh Groundwater.....	55
<b>Table 4.</b>	Estimated Project Costs for Development of Brackish Groundwater.....	58
<b>Table 5.</b>	Estimated Project Costs for Development of Finished Water.....	60
<b>Table 6.</b>	Estimated Project Costs for Upgrade from Secondary to Advanced Secondary Treatment.....	63
<b>Table 7.</b>	Implementation Schedule and Costs for Districtwide Water Resource Development Projects Fiscal Years 2006–2010.....	78
<b>Table 8.</b>	Public Water Supply Demand and Supply Projections for 2025.....	81



## List of Figures

<b>Figure 1.</b>	Lower West Coast Water Supply Planning Area.....	5
<b>Figure 2.</b>	User/Customer Demands – Water Categories as a Percentage of Total Demand in Bar Chart and Average Year Demands and Percentage of Growth in Tabular Chart. ....	15
<b>Figure 3.</b>	Water Withdrawal Demands – Water Categories as a Percentage of Total Demand in Bar Chart and Average Year Demands and Percentage of Growth in Tabular Chart. ....	16
<b>Figure 4.</b>	Generalized Geologic Cross-Section of the Lower West Coast Planning Area.	24
<b>Figure 5.</b>	Mid-Hawthorn Well L-4820 Water Levels, Cape Coral (USGS). ....	26
<b>Figure 6.</b>	Sandstone Aquifer Monitor Well L-729, Lehigh Acres Area (USGS). ....	26
<b>Figure 7.</b>	Model Boundary for Surficial Aquifer System Model. ....	33
<b>Figure 8.</b>	Active Area (shown in red) and Model Boundary (shown in pink) for Floridan Aquifer System Model. ....	34

